

CLAIMS

What is claimed is:

1 1. A computer-implemented method for processing multimedia channels
2 comprising:

3 encrypting a first group of multimedia channels using a first type of
4 encryption to produce a first group of encrypted multimedia channels;

5 encrypting said first group of multimedia channels using a second type of
6 encryption to produce a second group of encrypted multimedia channels;

7 concurrently transmitting said first group of encrypted multimedia
8 channels with said second group of multimedia channels to a plurality of
9 multimedia subscribers having multimedia receivers capable of decrypting said
10 first group of encrypted multimedia channels and/or said second group of
11 multimedia channels.

1
1 2. The method as in claim 1 wherein said first type of encryption is
2 standard conditional access ("CA") encryption.

1
1 3. The method as in claim 2 wherein said second type of encryption is
2 digital video broadcast ("DVB") encryption.

1
1 4. The method as in claim 1 wherein said first group of multimedia
2 channels are subscription based channels.

1

1 5. The method as in claim 1 further comprising:
2 compressing said first group of encrypted multimedia channels using a
3 first compression type and said second group of encrypted multimedia channels
4 using a second compression type.

1
1 6. The method as in claim 5 wherein said first compression type is
2 MPEG-2.

1
1 7. The method as in claim 6 wherein said second compression type is
2 MPEG-4.

1
1 8. The method as in claim 1 further comprising:
2 transmitting a second group of multimedia channels in an unencrypted
3 format.

1
1 9. The method as in claim 8 wherein said second group of multimedia
2 channels are basic cable channels and said first group of multimedia channels
3 are subscription-based cable channels.

1
1 10. The method as in claim 9 further comprising:
2 encrypting a first subset of said basic cable channels using said first type
3 of encryption to produce a first group of encrypted basic cable channels;
4 encrypting said first subset of said basic cable channels using said
5 second type of encryption to produce a second group of encrypted basic cable
6 channels; and

7 concurrently transmitting said first group of encrypted basic cable
8 channels with said second group of encrypted basic cable channels to said
9 plurality of multimedia subscribers.

1
1 11. The method as in claim 10 further comprising:
2 transmitting a second subset of said basic cable channels in an
3 unencrypted format.

1
1 12. The method as in claim 11 further comprising:
2 regularly transferring channels from said first subset of basic cable
3 channels to said second subset of basic cable channels and channels from said
4 second subset of basic cable to said first subset of basic cable channels.

1
1 13. A method comprising:
2 receiving a plurality of channels from content providers at a cable
3 headend;
4 simulcasting premium cable channels to a plurality of subscribers in both
5 a first encrypted format and a second encrypted format; and
6 transmitting non-premium channels to said plurality of subscribers in a
7 non-encrypted format.

1
1 14. The method as in claim 13 further comprising:
2 simulcasting a first subset of said non-premium cable channels to said
3 plurality of subscribers in said first encrypted format and said second encrypted
4 format.

1

1 15. The method as in claim 14 further comprising:
2 transmitting a second subset of said non-premium channels to said
3 subscribers in an unencrypted format.

1 16. The method as in claim 15 further comprising:
2 regularly transferring channels from said first subset of non-premium
3 cable channels to said second subset of non-premium cable channels and
4 channels from said second subset of non-premium cable to said first subset of
5 non-premium cable channels.

1 17. The method as in claim 16 further comprising:
2 transmitting channel mapping data to said subscribers identifying non-
3 premium channels in said first subset and in said second subset.

1 18. The method as in claim 13 wherein said first-encrypted format is
2 standard conditional access ("CA") encryption.

1 19. The method as in claim 18 wherein said second encrypted format is
2 digital video broadcast ("DVB") encryption.

1 20. The method as in claim 13 wherein said premium cable channels
2 transmitted in a first encrypted format are compressed in a first compression
3 format and premium cable channels transmitted in said second encrypted format
4 are compressed in a second compression format.

1 21. The method as in claim 20 wherein said first compression format is
2 MPEG-2.

1
1 22. The method as in claim 21 wherein said second compression format
2 is MPEG-4.

1
1 23. A method for deploying new multimedia receiver apparatuses
2 comprising:
3 encrypting channels using both conditional access ("CA") encryption and a
4 different form of encryption; and
5 simulcasting said channels encrypted in both CA encryption and said
6 different form of encryption;
7 said channels encrypted using said different form of encryption being
8 decryptable by said new multimedia receiver apparatuses and said channels
9 encrypted using said CA encryption being decryptable by other multimedia
10 receiver apparatuses.

1
1 24. The method as in claim 23 further comprising:
2 transmitting a specified group of channels using no encryption.

1
1 25. The method as in claim 23 wherein said specified group of channels
2 are basic cable channels and said channels being simulcast are premium
3 channels.

1
1 26. The method as in claim 25 further comprising:
2 encrypting a portion of said specified group of channels using both CA
3 encryption and a different form of encryption; and
4 simulcasting said portion encrypted using CA encryption and said portion
5 encrypted using said different form of encryption.

1
1 27. The method as in claim 26 wherein said different form of encryption is
2 digital video broadcast ("DVB") encryption.

1
1 28. The method as in claim 26 further comprising:
2 regularly modifying channels included within said portion.

1
1 29. An machine-readable medium having program code stored thereon
2 which, when executed by a processor, cause said processor to perform the
3 operations of:

4 encrypting a first group of multimedia channels using a first type of
5 encryption to produce a first group of encrypted multimedia channels;
6 encrypting said first group of multimedia channels using a second type of
7 encryption to produce a second group of encrypted multimedia channels;
8 concurrently transmitting said first group of encrypted multimedia
9 channels with said second group of multimedia channels to a plurality of
10 multimedia subscribers having multimedia receivers capable of decrypting said
11 first group of encrypted multimedia channels and/or said second group of
12 multimedia channels.

1
1 30. The machine-readable medium as in claim 29 wherein said first type
2 of encryption is standard conditional access ("CA") encryption.

1
1 31. The machine-readable medium as in claim 30 wherein said second
2 type of encryption is digital video broadcast ("DVB") encryption.

1 32. The machine-readable medium as in claim 29 wherein said first group
2 of multimedia channels are subscription based channels.

1 33. The machine-readable medium as in claim 29 having program code
2 stored thereon to cause said processor to perform the additional operations of:
3 compressing said first group of encrypted multimedia channels using a
4 first compression type and said second group of encrypted multimedia channels
5 using a second compression type.

1 34. The machine-readable medium as in claim 33 wherein said first
2 compression type is MPEG-2.

1 35. The machine-readable medium as in claim 34 wherein said second
2 compression type is MPEG-4.

1 36. The machine-readable medium as in claim 29 having program code
2 stored thereon to cause said processor to perform the additional operations of:
3 transmitting a second group of multimedia channels in an unencrypted
4 format.

1 37. The machine-readable medium as in claim 36 wherein said second
2 group of multimedia channels are basic cable channels and said first group of
3 multimedia channels are subscription-based cable channels.

1 38. The machine-readable medium as in claim 37 having program code
2 stored thereon to cause said processor to perform the additional operations of:

3 encrypting a first subset of said basic cable channels using said first type
4 of encryption to produce a first group of encrypted basic cable channels;
5 encrypting said first subset of said basic cable channels using said
6 second type of encryption to produce a second group of encrypted basic cable
7 channels; and
8 concurrently transmitting said first group of encrypted basic cable
9 channels with said second group of encrypted basic cable channels to said
10 plurality of multimedia subscribers.

1

1 39. The machine-readable medium as in claim 38 having program code
2 stored thereon to cause said processor to perform the additional operations of:
3 transmitting a second subset of said basic cable channels in an
4 unencrypted format.

1

1 40. The machine-readable medium as in claim 39 having program code
2 stored thereon to cause said processor to perform the additional operations of:
3 regularly transferring channels from said first subset of basic cable
4 channels to said second subset of basic cable channels and channels from said
5 second subset of basic cable to said first subset of basic cable channels.

1

1 41. A headend system for processing multimedia streams comprising:
2 a first encryption module to encrypt a first plurality of multimedia streams
3 using a first type of encryption; and
4 a second encryption module to encrypt said first plurality of multimedia
5 streams using a second type of encryption; and
6 a quadrature amplitude modulation module to modulate said first plurality
7 of multimedia streams and a second plurality of unencrypted multimedia streams

8 for transmission to a plurality of multimedia subscribers having multimedia
9 receivers capable of decrypting said first plurality of multimedia channels
10 encrypted using either said first type of encryption or said second type of
11 encryption.

1
1 42. The headend system as in claim 41 wherein said first type of
2 encryption is standard conditional access ("CA") encryption.

1
1 43. The headend system as in claim 42 wherein said second type of
2 encryption is digital video broadcast ("DVB") encryption.

1
1 44. The headend system as in claim 42 wherein said first plurality of
2 multimedia streams are premium cable channels.

1
1 45. The headend system as in claim 42 further comprising:
2 a first compression module to employ a first type of compression on said
3 first plurality of multimedia streams encrypted using said first compression type;
4 and

5 a second compression module to employ a second type of compression
6 on said first plurality of multimedia streams encrypted using said second
7 compression type.

1
1 46. The headend system as in claim 45 wherein said second
2 compression module employs said second type of compression on said second
3 plurality of multimedia streams.

1 47. The headend system as in claim 41 wherein said headend system is
2 a centralized uplink facility for broadcasting said first plurality of encrypted
3 multimedia streams and said second plurality of unencrypted multimedia streams
4 to two or more other headend systems,
5 said two or more other headend systems to broadcast said first plurality of
6 encrypted multimedia streams and said second plurality of unencrypted
7 multimedia streams to said plurality of multimedia subscribers.

1
1 48. The headend system as in claim 47 wherein said centralized uplink
2 facility only encrypts said first plurality of multimedia streams using said second
3 type of encryption and wherein said first type of encryption is performed at said
4 two or more other headend systems.

1
1 49. The headend system as in claim 48 wherein said first type of
2 encryption is standard CA encryption and said second type of encryption is an
3 alternate form of encryption.

1
1 50. The headend system as in claim 63 further comprising:
2 a first decompression module to decompress one or more of said first
3 plurality of multimedia streams previously compressed by content providers
4 using said first compression type and to transmit said one or more multimedia
5 streams to said second compression module for re-compression using said
6 second compression type.

1

1 51. A system comprising:
2 a centralized uplink facility to receive a first plurality of multimedia streams
3 from content providers and to encrypt said first plurality of multimedia streams
4 using a first type of encryption; and
5 a plurality of headend systems to receive said first plurality of multimedia
6 streams encrypted using said first type of encryption and to simulcast said first
7 plurality of multimedia streams using both said first type of encryption and a
8 second type of encryption, said first plurality of multimedia streams encrypted
9 using said second type of encryption at either said centralized uplink facility or at
10 said headend systems.

1
1 52. The system as in claim 51 wherein said first plurality of multimedia
2 streams are encrypted using said second type of encryption at each of said
3 plurality of headend systems.

1
1 53. The system as in claim 51 wherein said centralized uplink facility is
2 further configured to compress said first plurality of multimedia channels using a
3 first type of compression and said plurality of headend systems simulcast said
4 first plurality of streams using both said first type of encryption with said first type
5 of compression and a second type of encryption with a second type of
6 compression.

1
1 54. The system as in claim 53 wherein said first plurality of multimedia
2 streams are compressed using said second type of compression at each of said
3 plurality of headend systems.

1

1 55. The system as in claim 53 wherein said centralized uplink facility is
2 further configured to decompress one or more of said first plurality of multimedia
3 previously compressed by content providers using said second type of
4 compression and recompress said one or more of said first plurality of
5 multimedia channels using said first type of compression.

1

TCW